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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,507	12/21/2001	Michael J. Bricco	093395-9001-00	2077

7590 03/19/2003  
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EXAMINER

CHIN, PETER

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

1-6

**Office Action Summary**

Application No.

10/027,507

Applicant(s)

BRICCO ET AL.

Examiner

Peter Chin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-114 is/are pending in the application.
- 4a) Of the above claim(s) 3, 16, 17, 28-106, 109 and 112-114 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-15, 18-27, 107, 108, 110 and 111 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 3,16,17,28-106,109,112-114 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.
2. Applicant's election with traverse of the species 5a and 8e in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the species of 5e vibration head is interchangeable with species of 5a and 5b. This is not found persuasive because once the substitution is made a structure that is patentably distinct over the structure of figures 5a and 5b is created. No reasons were given in traversal of the election of species 8e and therefore the election of this species is deemed an election without traverse.

The requirement is still deemed proper and is therefore made FINAL.

1. Claims 1,2,4-8,19,26,27,107 and 108 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lehtinen (4,391,672).

Lehtinen discloses a process and apparatus for applying vibrations to assist dewatering of "paper supported on a weave" and "liquid W may be water in contact with the paper web should the web not be matted yet", first paragraph of column 1 and last paragraph of column 3 through first full paragraph, column 4. This is clearly a reference to the paper web on the forming wire. Vibrations are produced by ultrasonic radiators 10A and 10B which are for example piezoelectric or hydraulic based, column 3, last

paragraph, The use of ultrasonic frequency i.e., above 15-20 kHz, is not necessary and acoustic frequency on the order of 1 kHz can be used. The frequency used is adjusted not only for dewatering but also to control filler distribution in the paper, first full paragraph, column 5. The frequency can be steplessly adjusted, column 5, lines 26-46. This inherently means that the frequency does not rely on wire speed and is adjusted independent of the wire speed. Thus, Lehtinen anticipates or at the least, obviously shows the claimed invention.

Claim 7, the claimed consistency is inherent in Lehtinen since the web in forming section in paper machine encompasses the claimed range. If evidence is necessary see Calkin, copy provided.

Claim 8 reads on normal replacement for wear and tear.

Claim 10, layer of coupling liquid W, water, between the ultrasonic transducer and weave supported web, thus present in same manner and relationship as in the present invention, inherently serves as lubricant.

Claims 107 and 109 read on a 0° upstream portion slope, which is shown in Lehtinen.

2. Claim 9-15,18,20,21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehtinen (4,391,672).

Claim 9, while Lehtinen is silent as to dampening machine vibrations to the vibrating element, it would have been obvious expedient to do so in order to isolate the vibrating device from machine vibrations presence of a support frame otherwise machine vibrations could adversely affect the application of vibration from the vibration

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head and interfere with the control of frequency and amplitude of the vibration imparted to wire and web during dewatering by the vibrating head.


Claims 11-15,20-25, 110,111: It would have been obvious to provide the necessary frame support and for Lehtinen's vibrating device. Claim 18, the claimed force and amplitude are obvious matter of optimization based the desired dewatering and/or filler distribution. Additionally with respect claims 20,22,23,110 and 111, the use of a removable sliding connection, e.g., T or dove tail, is a standard connecting feature in the art for dewatering element that contact the forming wire, see for example Wiebe (3,598,694) and Cabrera y Lopez Caram et al (5,830,322).

Claim 14, Lehtinen contemplate vibrating devices other than piezoelectric devices, last paragraph of column 3 and thus, it would have been obvious to employ other known vibrating devices such as the pneumatic device claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

  
PETER CHIN  
PRIMARY EXAMINER